

## **REMARKS**

Reconsideration of this application as amended is respectfully requested.

In the Office Action dated March 6, 2006, claims 1-5, 8-10, 12-15, 17-20, 22-23 and 25-26 were pending. Claims 1-5, 8-10, 12-15, 17-20, 22-23 and 25-26 were rejected. In this response, claims 1-5, 8-10, 12-15, 17-20, 22-23 and 25-26 remain pending. Claims 1, 8, 10, 12-14, 17-19, 22-23 and 25-26 have been amended. No claims are added. No claims are canceled. Support for the amendments can be found throughout the specifications as filed. No new matter has been added.

### **Amendments**

### **Rejections**

#### ***Rejections under 35 U.S.C. § 103(a)***

#### **Claims 1-5, 8-10, 12-15, 17-20, 22-23 and 25-26**

Claims 1-5, 8-10, 12-15, 17-20, 22-23 and 25-26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen et al., IEEE Publication, incorporated by reference (hereinafter, "Chen") in view of U.S. Patent No. 5479563 to Yamaguchi (hereinafter "Yamaguchi"). However, Applicant respectfully submits that Applicant's invention as claimed in claims 1-5, 8-10, 12-15, 17-20, 22-23 and 25-26, as amended, is patentable over the cited references.

In particular, for examples, independent claims 1, 10, 14, 19 and 23, as amended, include the limitations:

“inputting a first phrase break to a first input of the RNN network,  
inputting a first POS tag from the tag sequence to a second input of the RNN network, wherein the first POS tag is associated with the first phrase break,  
inputting a second phrase break to a third input of the RNN network,  
inputting a second POS tag from the tag sequence to a fourth input of the RNN network, wherein the second POS tag is associated with the second phrase break, and wherein the second POS tag is next to the first POS tag in the tag sequence, and  
inputting the particular POS tag to a fifth input of the RNN network”  
(emphasis added)

Applicant's amended claims 1, 10, 14, 19 and 23 contain the limitations that a first phrase break, a first POS tag associated with the first phrase break, a second phrase break, and a second POS tag associated with the second phrase break are inputs to an RNN network, where the second POS tag is next to the first POS tag in a tag sequence. It is respectfully submitted that neither Chen nor Yamaguchi, individually or in combination, disclose or suggest the above noted limitations.

Rather, Chen teaches a RNN as a four-layer network, divided into two parts, with one input layer, two hidden layers and one output layer (Chen, Fig. 3, page 229). Chen also discloses inputs to the first part include POS of the current word, length of the current word, POS of the following word, length of the following word, and an indicator showing the type of punctuation mark located after the current word (Chen, page 229, Fig 3, section III). Inputs to the second part includes the tone of the current syllable, the initial type of the current syllable, the final type of the current syllable, the tone of the following syllable, the initial type of the following syllable, the final type of the current syllable and an indicator showing whether the current syllable forms a monosyllable word or is the first, an intermediate, or the last syllable of a polysyllabic word (Chen, Fig. 3, page 229-230). Chen further describes all outputs are fed back as contextual inputs (Chen, page 227) and outputs include eight prosodic parameters, including four pitch contour parameters, energy level, initial duration, final duration and pause duration (Chen, page 230). However, Chen is completely silent about the above noted limitations.

Yamaguchi, on the other hand, teaches a three layer neural network provided with input pattern creating units represents a part-of-speech number for three words as well as one threshold unit (Yamaguchi, Fig. 3, col. 4, lines 53-62). Yamaguchi also discloses another three layer neural network with input layer including a threshold unit and units indicating respective word numbers corresponding to words in a four-word-sequence (Yamaguchi, Fig. 11, col. 8, lines 5-16). However, nowhere in Yamaguchi discloses or suggests the above noted limitations.

Therefore, neither Chen nor Yamaguchi discloses or suggests a first phrase break, a first POS tag associated with the first phrase break, a second phrase break, and a second POS tag associated with the second phrase break are inputs to an RNN network, where the second POS tag is next to the first POS tag in a tag sequence as claimed in independent claims 1, 10,

14, 19 and 23, as amended, and dependent claims 4-5, 8-9, 12-15, 17-18, 20, 22 and 25-26, as amended. Even if they were combined, the combined teachings still fail to disclose or suggest the above noted limitations.

In order to render a claim obvious, each and every limitation of the claim must be taught by the cited references. Therefore, in view of the foregoing remarks, it is respectfully submitted that claims 1-5, 8-10, 12-15, 17-20, 22-23 and 25-26, as amended, are patentable over Chen in view of Yamaguchi.

### **CONCLUSION**

In view of the foregoing, Applicant respectfully submits the present application is now in condition for allowance. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call the undersigned attorney at (408) 720-8300.

Please charge Deposit Account No. 02-2666 for any shortage of fees in connection with this response.

Respectfully submitted,

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Date: 6-5, 2006



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